

## REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

Claims 1, 6, 8-11 are canceled, claims 2-5 and 7 are amended, and new claims 12 and 13 are added. Accordingly, claims 2-5, 7, 12 and 13 are pending for consideration. Additionally, paragraph 21 has been amended to address informalities. No new matter was added by this amendment.

The drawings stand objected to because they do not show features specified in claims 3 and 6. Specifically, the Official Action states that the “recess chamber formed in the outer periphery of said casing around said oil seal chamber” in claim 3, and the “motor mounted in said pump cylinder” in claim 6 are not shown in the drawings. Claim 6 has been canceled. Claim 3 has been amended to recite a “recess chamber formed ~~in~~ on the outer periphery of said ~~casing~~ pump cylinder around said oil seal chamber”. This feature of claim 3 is shown in the drawings. For example, Fig. 3 shows an annular recess chamber 21 formed on the outer periphery of a cylinder 7c, and around an oil seal chamber 20.

The drawings also stand objected to because reference numeral 18 is not mentioned in the description. In this regard, the Examiner's attention is directed to paragraph [0023] which provides a description for element 18. Element 18 refers to O-rings.

For at least these reasons, Applicants believe that the drawings fully comply with the requirements of 37 C.F.R § 1.83(a). Withdrawal of the objections to the drawings is earnestly solicited.

Claims 3-11 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Official Action indicates that there

is no description for the feature “a motor mounted in said pump cylinder” in claim 1 or “a recess chamber formed in the outer periphery of said casing around said oil seal chamber” in claims 3 and 7. The phrase “a motor mounted in said pump cylinder” is no longer present in any of the pending claims.

Claims 3 and 7 have been amended to recite “a recess chamber formed ~~in~~ on the outer periphery of said casing ~~pump cylinder~~ around said oil seal chamber”. Applicants’ specification contains support for claims 3 and 7. As indicated above, Fig. 3 shows an annular recess 21 formed on the outer periphery of cylinder 7c of the pump cylinder and around an oil seal chamber 20. See also paragraph [0021]. (Applicants have amended paragraph 21 by replacing “in” with --on-- for consistency with Fig. 3).

Claims 1-11 also stand rejected under 35 U.S.C. § 112, second paragraph as being incomplete for omitting essential structural cooperative relationships of elements. Specifically, the Official Action states that the high-pressure and low-pressure seals of claim 1 are recited in a structurally disconnected manner. Additionally, the Official Action indicates that it is unclear what elements are sealed by the high-pressure and low-pressure seals in claim 1. As noted above, claim 1 has been canceled.

New independent claims 12 and 13 fully comply with the requirements of Section 112, second paragraph. Support for claims 12 and 13 may be found in the description of the various embodiments described in the application. In one example, a high-pressure seal 8, located between a cylinder 7c and a rotary shaft 3, separates one of the pump units 10 from the motor M. See Fig. 1 and paragraph [0020]. Thus, high pressure seal 8 according to this embodiment seals the motor M from a pump unit. Axially outside of seal 8 and within cylinder 7c there is an oil seal

chamber 20. A low pressure seal 9 forms the axially outer wall of oil seal chamber 20 and motor M is to the right of seal 9 in Fig. 1. Hence, in this example, low pressure seal 9 seals the oil seal chamber 20 from the motor M while high pressure seal 8 seals the oil seal chamber 20 from a pump unit 10. See Id.

Claim 5 also stands rejected under Section 112, second paragraph. Claim 5 has been amended and is believed to fully comply with the requirements of Section 112.

For at least the above reasons, Applicants respectfully request that the rejections under Section 112 be withdrawn.

The claims stand rejected under 35 U.S.C. § 102(b) as anticipated by either Ariki, Paley or Niemiec. It is understood that these anticipatory rejections are based on the observation that each reference discloses a pair of seals (i.e., seals 90, 91 in Ariki, seals 41, 60 in Niemiec and seals 112, 120 in Paley) between which is a space which can be termed an "oil seal chamber." Further, the Office Action observes that to the extent oil leaks past one of the seals, the "oil seal chamber" will contain an oil layer. Clearly, there is no disclosure in any of the cited documents describing this occurrence or describing that it would be desirable to achieve such a result. Indeed, the nature of the seals described in the cited references indicates just the opposite.

Nevertheless, to more clearly distinguish over the cited references, claims 12 and 13 recite that the shaft is completely submerged in oil in the oil seal chamber, language which was previously recited in claim 6. As discussed in the present application, by completely submerging the rotary shaft 3 in oil, e.g., as shown in Fig. 3, it is difficult for air to pass into the pump units. This is a desirable result as it avoids adverse influence on the operation of a brake actuator. See paragraph [0005].

None of the art of record discloses a shaft completely submerged in oil in an oil seal chamber. As mentioned above, the Official Action refers to the hermetic seals in Ariki, Niemiec and Paley, and notes that spaces between these seals will receive oil if one of the seals is breached. However, because the relevant space in each of these references is hermetically sealed, any fluid which might leak through the seal will gradually increase the air pressure in the space. The air pressure in the space will thus rise and will prevent any further leakage of oil into the space. Quite significantly, this will occur long before the shaft is completely submerged in the oil in the space as recited in claims 12 and 13.

For at least these reasons, Applicants submit that claims 12 and 13 are patentable over the art of record. Allowance of claims 12 and 13 is earnestly solicited.

Claims 2-5 and 7 depend from allowable claim 12 and recite additional features of the invention that further distinguish over the art. Withdrawal of the rejections of claims 2-5 and 7 and allowance of these claims is earnestly solicited.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: May 1, 2006

By:



Matthew L. Schneider,  
Registration No. 32,814

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620